WHAT IS CLAIMED IS:

1. A program reproducing method of reproducing an existing program, which has been created by a method other than the Lyee development method, as a new program

5   having a structure in accordance with the Lyee development method while maintaining functions accomplished by said existing program, comprising steps of:

extracting a word, which is being used in said

10 existing program, from said program in a form in which a definitive to which this word is related is identified;

assigning the extracted word to one or a plurality of pallets in dependence upon the type of definitive to which the word is related; and

15 converting each statement or command of the existing program to a form in accordance with any of a plurality of program components having a structure in compliance with the Lyee development method in one or a plurality of pallets to which words contained in the

20 statements or commands have been assigned.

2. A program reproducing method according to claim 1, wherein a statement or a command, from among statements or commands of an existing program, that is for generating data to be stored in a field represented by a

25 word is converted to a form in accordance with a program component for data generation from among said plurality of program components.

3. A program reproducing method according to claim 1,

further comprising the following steps with regard to a statement or command that includes two or more words among statements or words of an existing program:

determining whether a relationship between two or

5 more pallets to which respective ones of two or more words being used in the statement or command is a relationship that satisfies a predetermined sequence;

in a case where the relationship between two or more pallets does not satisfy the predetermined

10 sequence, decomposing the statement or command into a plurality of statements or commands and incorporating a new word in each statement or command obtained by decomposition; and

assigning new words to one or a plurality of

15 pallets in such a manner that the relationship between two or more pallets, to which two or more words included in each of the statements or commands obtained by decomposition are assigned, will satisfy the predetermined sequence.

20 4.   A program reproducing method according to claim 1, wherein an extracted word is a self word or given word.

5.   A program reproducing method according to claim 1, further comprising a step of adopting a statement or command, which executes physical input/output processing

25 with regard to a definitive, from among statements or commands of an existing program as part of a program component, which is for performing overall control of pallets, from among said plurality of program

components.

6. A program reproducing method according to claim 1, wherein said pallet is any of a W04 pallet relating to output processing, a W02 pallet relating to input processing and a W03 pallet relating to data generation processing, further comprising steps of:

   if an extracted word is related to a definitive used in input processing, assigning this word to at least the W02 pallet; and

   if an extracted word is related to a definitive used in output processing, assigning this word to at least the W04 pallet.

7. A program reproducing method according to claim 6, wherein a set consisting of a W04 pallet, W02 pallet and W03 pallet is provided in accordance with the type of definitive to which a word being used in an existing program is related.

8. A program reproducing method according to claim 6, wherein if a word being used in said existing program is a word not related to a definitive, a set consisting of a W04 pallet, W02 pallet and W03 pallet for assigning this word is provided separately.

9. A program reproducing method according to claim 6, wherein if a description of error processing is included in said existing program, a set consisting of a W04 pallet, W02 pallet and W03 pallet for handling this error processing is provided separately.

10. A program reproducing method of reproducing an

existing program, which has been created by a method
other than the Lyee development method, as a new program
having a structure in accordance with the Lyee
development method while maintaining functions
5 accomplished by said existing program, comprising steps
of:

extracting a definitive, which is controlled by an
existing program, from the existing program;

preparing, with regard to the extracted definitive,
10 a plurality of program components for operating a base
structure consisting of a set of W02, W04 and W03
pallets;

extracting words, which are being used in said
existing program, from said existing program in a form
15 in which the definitive to which the words belong and
input/output categories of the words are identified;

assigning the words to one or a plurality of the
pallets among the W02, W04 and W03 pallets, with regard
to the definitive to which the words belong, in
20 dependence upon the definitive to which the extracted
words belong and the input/output categories of the
words; and

converting a statement or command that contains a
word of the existing program to a form in accordance
25 with any of a plurality of program components having a
structure in compliance with the Lyee development method
in a pallet related to the statement or command through
the word.

11. A program reproducing method according to claim 10, further comprising steps of:

if an extracted word belongs to a definitive used in input processing, assigning this word to at least the

5 W02 pallet; and

if an extracted word is related to a definitive used in output processing, assigning this word to at least the W04 pallet.

12. A program reproducing method according to claim 10,

10 wherein if an extracted word is a word that does not belong to any extracted definitive, a plurality of program components which operate a base structure for assigning this word are prepared separately.

13. A program reproducing method according to claim 10,

15 wherein if a description of error processing is included in said existing program, a plurality of program components which operate a base structure for handling this error processing are prepared separately.

14. A program reproducing method according to claim 10,

20 wherein a statement or a command, from among statements or commands of an existing program, that is for generating data to be stored in a field represented by a word is converted to a form in accordance with a program component for data generation from among said plurality

25 of program components.

15. A program reproducing method according to claim 10, further comprising the following steps with regard to a statement or command that includes two or more words

among statements or words of an existing program:

determining whether a relationship between two or more pallets to which respective ones of two or more words being used in the statement or command is a

5   relationship that satisfies a predetermined sequence;

in a case where the relationship between two or more pallets does not satisfy the predetermined sequence, decomposing the statement or command into a plurality of statements or command and incorporating a

10   new word in each statement or command obtained by decomposition; and

assigning new words to one or a plurality of pallets among the W04, W02 and W03 pallets in such a manner that the relationship between two or more

15   pallets, to which two or more words included in each of the statements or commands obtained by decomposition have been assigned, will satisfy the predetermined sequence.

16. A program reproducing method according to claim 10,

20   further comprising a step of adopting a statement or command, which executes physical input/output processing with regard to a definitive, from among statements or commands of an existing program as part of a program component, which is for performing overall control of

25   pallets, from among said plurality of program components.

17. A program reproducing method according to claim 10, further comprising a step of creating a process route

diagram, which represents the flow of processing of said existing program, from said existing program by one base structure or by a combination of a plurality of base structures.

5   18. A program reproducing method according to claim 17, further comprising steps of:

if a route connected to two or more different base structures or a route connected to quit processing is expressed in said process route diagram, extracting,

10   from said existing program, a conditional statement or conditional command representing a branch condition at a branch point of the route; and

converting the extracted conditional statement or conditional command to a form in compliance with a

15   program component, which is for route determination, from among a plurality of program components of a pallet from which said branch point originates.

19. A program reproducing method according to claim 10, further comprising steps of:

20   searching for a conditional statement or conditional command representing a data input condition or a data output condition based upon the description of an existing program; and

if a conditional statement or conditional command

25   representing a data input condition or a data output condition has been extracted, converting the extracted conditional statement or conditional command to a form that is in accordance with a program component for input

or output operation from among a plurality of program components in a pallet in which the data input condition or data output condition acts.

20. A program reproducing method according to claim 10, further comprising steps of:

searching for a conditional statement or conditional command representing a decision condition of an equivalent word based upon the description of an existing program; and

if a conditional statement or conditional command representing a decision condition of an equivalent word has been extracted, converting the extracted conditional statement or conditional command to a form that is in accordance with a program component from among a plurality of program components in a pallet to which the equivalent word has been assigned.

21. A program reproducing apparatus comprising:

first storage means for storing a plurality of program components which construct a Lyee program;

second storage means for storing tense control function information, base structure information, pallet information, definitive information, route information and command information obtained from a process route diagram created based upon an existing program;

third storage means for storing an existing program applied thereto;

first assignment means for assigning a word, which is being used in the existing program that has been

stored in the third storage means, to one or a plurality of pallets among a W04 pallet, W02 pallet and W03 pallet, which are included in a base structure to which the word is related, based upon the tense control

5 function information, base structure information, pallet information and definitive information that has been stored in said second storage means; and

conversion means which, on the basis of the route information and command information that has been stored

10 in said second storage means, is for converting each statement or command of the existing program that has been stored in the third storage means to a form in accordance with any of the plurality of program components, which have been stored in said first storage

15 means, in the one or plurality of pallets to which a word included in the statement or command has been assigned.

22. A program reproducing apparatus according to claim 21, further comprising statement or command read-in

20 means for reading in a statement or command of an existing program.

23. A program reproducing apparatus according to claim 22, wherein if a word being used in a statement or command read in by said read-in means is related to a

25 definitive used in input processing, said first assignment means assigns this word to at least the W02 pallet; and

if a word being used in a statement or command that

has been read in is related to a definitive used in output processing, said first assignment means assigns this word to at least the W04 pallet.

24. A program reproducing apparatus according to claim 22, further comprising:

determination means for determining of the statement or command that has been read in by said read-in means, with regard to a statement or command including two or more words, whether a relationship between two or more pallets to which respective ones of two or more words being used in the statement or command is a relationship that satisfies a predetermined sequence;

means, responsive to a determination by said determination means that the relationship between two or more pallets does not satisfy the predetermined sequence, for decomposing the statement or command into a plurality of statements or commands and incorporating a new word in each statement or command obtained by decomposition; and

second assignment means for assigning new words to one or a plurality of pallets in such a manner that the relationship between two or more pallets, to which two or more words included in each of the statements or commands obtained by decomposition are assigned, will satisfy the predetermined sequence.

25. A program reproducing apparatus according to claim 22, further comprising self-word/given-word identifying

means for identifying whether a word being used in a statement or command that has been read in by said read-in means is a self word or a given word.

26. A program reproducing apparatus according to claim 21, wherein a program component for data generation has been stored in said first storage means; and

said conversion means converts a statement or a command, from among statements or commands of an existing program, that is for generating data to be stored in a field represented by a word to a form in accordance with said program component for data generation from among said plurality of program components.

27. A program reproducing apparatus according to claim 21, wherein a program component, which is for performing overall control of a set of W04, W02 and W03 pallets, has been stored in said first storage means; and

said conversion means adopts a statement or command, which executes input/output processing with regard to a screen, from among statements or commands of an existing program as part of a program component, which is for performing overall control of said W04, W02 and W03 pallets, from among said plurality of program components.

28. A program reproducing apparatus according to claim 21, wherein a program component for route determination has been stored in said first storage means, said apparatus further comprising:

route-branch-condition-command extraction means for extracting, from said conventional program on the basis of route information that has been stored in said second storage means, a conditional statement or conditional

5   command representing a branch condition of the route;

said conversion means converting the extracted conditional statement or conditional command to a form in compliance with a program component, which is for route determination, from among a plurality of program

10   components of a pallet from which branching of said route originates.

29.   A program reproducing apparatus according to claim 21, wherein program components for an input operation and for an output operation have been stored in said

15   first storage means;

said apparatus further comprises data-input/output-condition-command searching means for searching for a conditional statement or conditional command representing a data input condition or a data output

20   condition based upon the description of an existing program; and

in a case where a conditional statement or conditional command representing a data input condition or a data output condition has been extracted, said

25   conversion means converts the extracted conditional statement or conditional command to a form that is in accordance with said program component for input or output operation from among a plurality of program

components in a pallet in which the data input condition
or data output condition acts.

30. A program reproducing apparatus according to claim
21, wherein a program component for data generation has

5   been stored in said first storage means;

said apparatus further comprises equivalent-word-
decision-condition-command searching means for searching
for a conditional statement or conditional command
representing a decision condition of an equivalent word

10   based upon the description of an existing program; and

in a case where a conditional statement or
conditional command representing a decision condition of
an equivalent word has been extracted, said conversion
means converts this conditional statement or conditional

15   command to a form that is in accordance with a program
component from among a plurality of program components
in a pallet to which the equivalent word has been
assigned.

31. A recording medium on which has been recorded an

20   assignment program for controlling a program reproducing
apparatus for reproducing an existing program, which has
been created by a method other than the Lyee development
method, as a new program having a pallet structure in
accordance with the Lyee development method while

25   maintaining functions accomplished by said existing
program, said assignment program:

discriminating a type of definitive, to which a
word being used by a statement or command of said

existing program belongs, based upon tense control function information, base structure information, pallet information and definitive information obtained from said existing program;

5   discriminating a type of pallet, to which said word is to be assigned, based upon a read statement or command regarding said word for which the type of definitive to which the word belongs has been discriminated; and

10   controlling said program reproducing apparatus in such a manner that said word is assigned to one or a plurality of pallets in dependence upon the type of definitive and type of pallet discriminated.

32. A medium according to claim 31, said medium having
15 recorded thereon an assignment program for:

      discriminating whether a word being used in said statement or command is a self word or a given word based upon the type of statement or command in which said word is being used; and

20   in a case where the word being used in a statement or command is determined as being a self word or given word, controlling said program reproducing apparatus in such a manner that the word being used in said statement or command is furnished with an identifier indicating
25 that the word is a self word or indicating that the word is a given word.

33. A recording medium on which has been recorded a conversion program for controlling a program reproducing

apparatus having a storage unit storing a plurality of program components constructing a Lyee program, said program reproducing apparatus reproducing an existing program, which has been created by a method other than

5   the Lyee development method, as a new program having a pallet structure in accordance with the Lyee development method while maintaining functions accomplished by said existing program;

said existing program being such that information

10 relating to one or a plurality of pallets to which a word is to be assigned is furnished with regard to a word being used in a statement or command of said existing program;

said conversion program controlling the program

15 reproducing apparatus in such a manner that a statement or command of said existing program is converted to a form in accordance with any of a plurality of program components in a pallet specified by information relating to an assigned pallet appended to a word included in the

20 statement or command.

34.   A recording medium according to claim 33, wherein a program component for data generation is included in said plurality of program components; and

said conversion program converts a statement or

25 command for generating data to be stored in a field represented by a word to a form in accordance with a program component for data generation among said plurality of program components.

35.   A recording medium according to claim 33, wherein said plurality of program components include a program component for performing overall control of a set of a plurality of pallets; and

5   said conversion program adopts a statement or command, which executes input/output processing with regard to a screen, as part of a program component, which is for performing overall control of a set of a plurality of pallets, from among said plurality of

10   program components.

36.   A recording medium according to claim 33, wherein said plurality of program components include a program component for a route decision; and

          said conversion program:

15   extracts a conditional statement or conditional command, which represents a branch condition of the route, from said existing program on the basis of route information obtained from said existing program; and

          converts the extracted conditional statement or

20   conditional command to a form in compliance with a program component, which is for route determination, from among a plurality of program components of a pallet from which branching of said route originates.

37.   A recording medium according to claim 33, wherein

25   said plurality of program components include program components for an input operation and for an output operation; and

          said conversion program:

searches the existing program for a conditional statement or conditional command representing a data input condition or a data output condition; and

if a conditional statement or conditional command representing a data input condition or a data output condition has been extracted, converts the extracted conditional statement or conditional command to a form that is in accordance with said program component for input or output operation from among a plurality of program components in a pallet in which the data input condition or data output condition acts.

38. A recording medium according to claim 33, wherein said plurality of program components include a program component for data generation; and

said conversion program:

searches the existing program for a conditional statement or conditional command representing a decision condition of an equivalent word; and

if a conditional statement or conditional command representing a decision condition of an equivalent word has been extracted, converts this conditional statement or conditional command to a form that is in accordance with a program component from among a plurality of program components in a pallet to which the equivalent word has been assigned.

39. A program reproducing apparatus for reproducing an existing program, which has been created by a method other than the Lyee development method, as a new program

having a structure in accordance with the Lyee

development method while maintaining functions

accomplished by said existing program, comprising:

storage means for storing a plurality of program

5   components which construct a Lyee program;

input means for inputting an existing program;

definitive extraction means for extracting a

definitive from the existing program that has been

input;

10   word/definitive relationship extraction means for

extracting a relationship between a word and a

definitive from the existing program that has been

input;

input/output category extraction means for

15   extracting an input/output category of a word that has

been extracted by said word extraction means for the

existing program that has been input;

assignment means for assigning a word that has been

extracted by said word extraction means to one or a

20   plurality of pallets to which the word is related based

upon the relationship between the word and definitive

extracted by said word/definitive relationship

extraction means and the word input/output category

extracted by said input/output category extraction

25   means; and

conversion means for converting each statement or

command of the existing program to a form in accordance

with any of a plurality of program components, which

have been stored in said storage means, in one or a plurality of pallets to which words contained in the statements or commands have been assigned.